

The following listing of claims will replace all prior versions, and listings, of claims in the above-identified application:

Listing of Claims

Claims 1-9 (canceled).

Claim 10 (previously presented): An apparatus for substantially closing a vascular opening in a vessel while permitting post operative blood flow through said vessel, which comprises:

a housing having proximal and distal ends, and defining a longitudinal axis;

at least two tissue engaging members disposed adjacent the distal end of the housing, said tissue engaging members being longitudinally and reciprocally movable relative to said housing between a retracted position and an advanced position in which the at least two tissue engaging members are at least partially exposed from the housing, the at least two tissue engaging members being adapted to cooperate to engage vascular tissue adjacent the vascular opening such that the vascular tissue is oriented in a predetermined orientation, said tissue engaging members each having a distal segment arranged in a general hook or J-shaped configuration, said distal segments being disposed in general diametrical opposed relation and generally curving away from the longitudinal axis when said tissue engaging members are in said advanced position; and

at least two jaw members positioned adjacent said tissue engaging members and being movable independently thereof, said jaw members adapted for seizure of the vascular tissue in the predetermined orientation when in an open position of

said jaw members, drawing together the vascular tissue during closing of said jaw members, and rendering the vascular tissue in adjacent relation when in a closed position of said jaw members.

Claim 11 (previously presented): The apparatus of claim 10 wherein each of said tissue engaging members is composed, in whole or in part, of a shape memory material such that said distal segments of each of said tissue engaging members is adapted to assume a normal unstressed condition upon deployment.

Claim 12 (previously presented): The apparatus of claim 11 wherein said distal segment of each of said tissue engaging members is configured in the general hook or J-shaped configuration in the normal unstressed condition.

Claim 13 (previously presented): The apparatus of claim 12 including a deployment member connected to said tissue engaging members such that said tissue engaging members are manually deployable to move relative to the housing to engage the vascular tissue and orient the vascular tissue in the predetermined orientation.

Claim 14 (previously presented): The apparatus of claim 10 including an elongated shaft at least partially disposed in said housing.

Claim 15 (previously presented): The apparatus of claim 14 wherein said elongated shaft includes a longitudinal slot for accommodating said tissue engaging members.

Claim 16 (previously presented): The apparatus of claim 14 wherein at least one of said jaw members includes an attachment member wherein said attachment member serves to adjoin the tissue adjacent said vascular opening.

Claim 17 (previously presented): The apparatus of claim 16 wherein said attachment member is conductive.

Claim 18 (previously presented): The apparatus of claim 17 wherein said attachment member is adapted to transmit thermal energy through application of an energy source thereto, thereby thermally fusing the vascular tissue surrounding the vascular opening.

Claim 19 (previously presented): The apparatus of claim 10 including a movable actuator connected to at least one of said jaw members such movement of said jaw members from said open position to said closed position corresponds with movement of said actuator.

Claim 20 (previously presented): The apparatus of claim 19 further including a spring member in engagement with said actuator to bias said jaw members towards the closed position.

Claim 21 (previously presented) The apparatus of claim 10 wherein said tissue engaging members include a first tissue engaging member having a distal portion curving in a first direction and a second tissue engaging member having a distal portion curving in a second direction, the first direction being opposite the second direction.

Claim 22 (previously presented): The apparatus of claim 10 wherein said tissue engaging members each include a sharpened extreme distal end, at least the extreme distal end being disposed within the housing when said tissue engaging members are in the retracted position.

Claim 23 (previously presented): The apparatus of claim 22 wherein said tissue engaging members are entirely concealed within the housing when said tissue engaging members are in the retracted position.

Claim 24 (previously presented): The apparatus of claim 16 wherein said attachment member is configured to be received by a recess formed on said elongated shaft to thereby define a reduced profile.

Claim 25 (currently amended): An apparatus for substantially closing a vascular opening in a vessel while permitting post operative blood flow through said vessel, which comprises:

a housing defining a longitudinal axis;

a pair of tissue engaging members at least partially extending from the housing, the pair of tissue engaging members being longitudinally and reciprocally movable relative to said housing between a retracted position and an advanced position ~~orientation~~, the tissue engaging members having tissue contacting segments with pointed ends adapted for positioning through the vascular opening when the tissue engaging members are in the retracted position, the tissue contacting segments having arcuate segments curving away from the longitudinal axis and in diametrical opposed relation when the tissue engaging members are in the advanced position to engage internal surfaces of the vascular tissue on opposed sides of the vascular opening to position the vascular tissue in a predetermined orientation; and

a pair of jaw members disposed adjacent the tissue engaging members, the jaw members adapted for seizure of the vascular tissue in the predetermined orientation when in an open position of the jaw members, drawing together the vascular tissue during closing of the jaw members, and rendering the vascular tissue in adjacent relation when in a closed position of the jaw members, the jaw members movable independent of the tissue engaging members.

Claim 26 (previously presented): The apparatus of claim 25 including a manually operative deployment member connected to the tissue engaging members, the

manually operative deployment member movable to deploy the tissue engaging members whereby the tissue contacting segments of the tissue engaging members engage and position the vascular tissue in the predetermined orientation.

Claim 27 (previously presented): The apparatus of claim 26 wherein the tissue contacting segments of the tissue engaging members are adapted for movement in an at least radial outward direction relative to the longitudinal axis of the housing upon movement of the deployment member.

Claim 28 (previously presented): The apparatus of claim 27 wherein the tissue engaging members are further adapted for longitudinal movement from a retracted position to an advanced position to engage and orient the vascular tissue in the predetermined orientation.